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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,431	06/20/2005	Philippe Guillotel	PF030007	6805
24498	7590	06/09/2009	EXAMINER	
Thomson Licensing LLC			ASHRAF, WASEEM	
P.O. Box 5312			ART UNIT	
Two Independence Way			PAPER NUMBER	
PRINCETON, NJ 08543-5312			2455	
			MAIL DATE	DELIVERY MODE
			06/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,431	Applicant(s) GUILLOTET ET AL.	
	Examiner WASEEM ASHRAF	Art Unit 2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is a responsive to the RCE filed on 04/21/2009.
2. Claims 1-13 are pending in this office action.
3. Claims 1, 7, 10, and 12 were amended and claim 13 was newly added.
4. Claims 1-13 are rejected.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 2001/0004352 A1) in view of Sahai et al. (US 6594699 B1)

Stein teaches the invention substantially as claimed, including a data receiving terminal, if a received-data of a particular time section received from a data sending terminal does not satisfy a predetermined accumulation quality as the result of discrimination by a received-data quality discriminating section, an alternative-data sending requesting section requests a data sending terminal for alternative data. (See abstract)

Regarding claims 1, 10 and 12, Watanabe teaches a device, a process and a computer program product for the adjustment of the bit rate of a stream of contents as a function of processing capabilities of at least one receiver (Fig. 1 teaches receiving terminal 3), the contents being transmitted by a sender to the receiver via a network (Fig. 1 teaches network 4), according to a communication protocol providing for a return transmission of reception data of the contents by the receiver to the sender (Pg. 2, paragraph 0021 teaches RTCP protocol providing return transmission of reception data), the device comprising : **a module for inputting information relating to the capabilities** (Paragraph 0095-0097 teaches determining accumulation quality of

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the received data from data-quality-variance range; in other words the receiver selects which bit rate the receiver wants to receive the data that presents the best quality); **a module for**

estimating a required level for the bit rate at least as a function of the information

(Paragraph 0037 teaches a received-data quality discriminating section for discriminating if the data received satisfies a pre-determined accumulation quality; in other words the discrimination modules (a module) estimates (1 quality over other is a range variance of bit rate, it is an estimate not an exact rate) a required level for the bit rate (different quality means receiving on different rate as taught by reference) as a function of the information (discriminates based on the predetermined rate information which is selected by the receiver)), **and a module for writing stream adjustment cues that is intended to write the adjustment cues for return**

transmission with the reception data to the sender (Paragraph 0038 teaches an alternative-data sending requesting section that sends a request to sender for alternative data; in other words this modules writes the request for alternative data that needs to be sent on the predetermined quality), **the adjustment cues being capable of bringing about a modification of the bit rate in relation to the required level** (Paragraph 0043 teaches alternative-data sending section that sends the alternative data when requested by alternative requesting section of receiver; in other words when a receiver requests alternative data, the request is capable of bringing about a modification of the bit rate in relation to required level (predetermined quality)), **wherein the communication protocol providing for a return transmission to the sender of at least one parameter relating to conditions of communication of the contents** (Paragraph 0079 teaches sending terminal recognizing a status of traffic load of the network band to the receiving terminal, and making quality selection for sending the data; in other words the communication protocol

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(RTCP) provides to the sender one parameter relating to condition of communication of the contents (quality parameter)) **in the network between the sender and the receiver** (Fig. 1 teaches the data being sent between sender and receiver based on the selected quality parameter), **the writing module is intended to modify the parameter in such a way as to use it to transmit the adjustment cues** (Paragraph 0038 teaches alternative data requesting section that sends a request for alternative data; in other words the quality parameter is modified to pre-determined quality parameter); however it does not explicitly teaches **said processing capabilities being the resources of said at least one receiver fit for processing the data received.**

Sahai from the same or similar field of endeavor teaches **processing capabilities being the resources of said at least one receiver fit for processing the data received** (Col 3, lines 5-25 teaches set of capabilities of client)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the system of Sahai into the system of Watanabe).

One would be motivated to do so to obtain processing capability of the receiver so the stream can be adjusted in according to the processing capability of the receiver. (See, Abstract)

Regarding claim 2, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein the communication protocol is the RTCP protocol** (Pg. 5, paragraph 0079 teaches using RTCP protocol)

Regarding claim 3, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein the parameter of the protocol is intended to serve to calculate a round trip transmission delay between the sender and the receiver** (Pg. 2, Paragraph 0021 teaches measuring round trip delay time by using parameters SR/RR of RTCP protocol)

Regarding claim 4, Watanabe teaches the limitation as described in claim 3 above, and further discloses **wherein the parameter of the protocol comprises a delay introduced at the receiver between a moment of reception of the contents and a moment of sending of the reception data by the receiver** (Fig. 12 teaches sending RR message that includes delay introduced at receiving terminal between the reception of message 112 and sending of the message 113)

Regarding claim 6, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein the writing module is capable of modifying the parameter by means of several successive variations of the parameter** (Fig. 5 teaches network interface section 31 that sends the RR report that contains modified parameter. Depending on the network and device condition it will be varied to adjust to the required rate)

Regarding claim 7, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein the estimating module is capable of determining a value to be attained for the bit rate of the stream of contents also as a function of a rate of sharing of the capabilities of the receiver between several streams** (Fig. 5 teaches section 35' that is

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capable of determining the required rate of the content based on the expected quality information); however it does not explicitly teaches **said capabilities being shared between several streams processed in parallel in said receiver.**

Sahai from the same or similar field of endeavor teaches **said capabilities being shared between several streams processed in parallel in said receiver** (Col 3, lines 5-10 teaches that when client requests media, he also sends the client capabilities; the capabilities of the client devices are always shared between different tasks; and as taught the capabilities can be sent to transmitter in the request)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the system of Sahai into the system of Watanabe).

One would be motivated to do so to obtain processing capability of the receiver so the stream can be adjusted in according to the processing capability of the receiver. (See, Abstract)

Regarding claim 8, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein the input module and estimation module are designed so that the processing capabilities of the receiver comprise at least one criterion of the performance of the receiver chosen from among a data processing speed, a memory volume, an energy consumption and a presence of components dedicated to the processing of the contents** (Pg. 1, paragraph 16 teaches lowering sending rate; which reflects the performance capabilities of the receiving device)

Regarding claim 9, Watanabe teaches the limitation as described in claim 1 above, and further discloses **wherein it comprises a device for adjusting bit rate in accordance with claim 1** (Fig. 5 teaches receiving terminal 3)

Regarding claim 11, Watanabe teaches the limitation as described in claim 10 above, and further discloses **wherein the network is a point-to-point communication network and the stream of the contents is transmitted continuously** (Pg. 7, Paragraph 0112 teaches sending MPEG system stream in RTP)

Regarding claim 13, Watanabe teaches the limitation as described in claim 1 above, however it does not explicitly teaches wherein the processing capabilities of said at least one receiver belong to the set of processing capabilities comprising: **-data processing speed; -memory volume; -energy consumption; and -presence of components dedicated to the processing of the contents.**

Sahai from the same or similar field of endeavor teaches wherein the processing capabilities of said at least one receiver belong to the set of processing capabilities comprising: **-data processing speed; -memory volume; -energy consumption; and -presence of components dedicated to the processing of the contents** (Col 3, lines 24-30 teaches memory speed, and processing power, etc.. being the capabilities of the client device that are sent to the server in a request)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the system of Sahai into the system of Watanabe).

One would be motivated to do so to obtain processing capability of the receiver so the stream can be adjusted in according to the processing capability of the receiver. (See, Abstract)

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 2001/0004352 A1) in view of Sahai et al. (US 6594699 B1) And further in view of Teruhi et al. (US 7327676 B2).

Stein teaches the invention substantially as claimed, including a data receiving terminal, if a received-data of a particular time section received from a data sending terminal does not satisfy a predetermined accumulation quality as the result of discrimination by a received-data quality discriminating section, an alternative-data sending requesting section requests a data sending terminal for alternative data. (See abstract)

Regarding claim 5, Watanabe teaches all the limitations of claim 1 as discussed above, however, it fails to explicitly teach **wherein the parameter of the protocol comprises a contents loss rate**.

Teruhi from the same or similar field of endeavor teaches **wherein the parameter of the protocol comprises a contents loss rate** (Fig. 4 teaches format of receiver report that comprises the number of packets lost)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use packet loss field of RTCP protocol to calculate content loss rate. One would be motivated to do so to obtain rout quality information. (See Col 6, lines 66-67)

Response to Arguments

10. Applicant's arguments and amendments filed on 04/21/2009 have been carefully considered but they are not deemed fully persuasive.

Argument A: Applicant argues; Watanabe neither discloses nor suggests said processing capabilities being the resources of said at least one receiver fit for processing the data received.

Response A: Examiner respectfully disagrees.

This limitation was introduced by the amendment to the claim language and has been addressed in prior art rejection section with regard to claim 1.

Argument B: Applicant argues; Watanabe neither discloses nor suggests a module for inputting information relating to said capabilities.

Response B: Examiner respectfully disagrees.

Sahai, Col 3, lines 5-35 teaches inputting the capabilities of the client device. It further teaches a client capability file that contains the capabilities and can be send to the server.

Argument C: Applicant argues; Watanabe neither discloses nor suggests "a module for estimating a required level for said bit rate at least as a function of said information."

Response C: Examiner respectfully disagrees.

Paragraph 0037 teaches a received-data quality discriminating section for discriminating if the data received satisfies a pre-determined accumulation quality; in other words the discrimination

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modules (a module) estimates (different qualities is a range variance of bit rate they are encoded in, it is an estimate not an exact rate) a required level for the bit rate (different quality means receiving on different rate as taught by reference) as a function of the information (discriminates based on the predetermined rate information which is selected by the receiver)); the transmitter sends the data based on the capabilities sent to transmitter by client (See Sahai art), so when the differentiation is made to meet the required level, it is based on the capabilities of client.

Argument D: Applicant argues; Watanabe neither discloses nor suggests "a module for writing stream adjustment cues that is intended to write said adjustment cues for return transmission with said reception data to said sender, said adjustment cues being capable of bringing about a modification of said bit rate in relation to said required level."

Response D: Examiner respectfully disagrees.

Paragraph 0038 teaches an alternative-data sending requesting section that sends a request to sender for alternative data; in other words this module writes the request for alternative data that needs to be sent in order to receive the predetermined quality. Paragraph 0043 teaches alternative-data sending section that sends the alternative data when requested by alternative requesting section of receiver; in other words when a receiver requests alternative data, the request is capable of bringing about a modification of the bit rate in relation to required level (predetermined quality))

Argument E: Applicant argues; Watanabe also neither discloses nor suggests said communication protocol providing for a return transmission to said sender of at least one

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parameter relating to conditions of communication of said contents in said network between said sender and said receiver, the writing module is intended to modify said parameter in such a way as to use it to transmit said adjustment cues".

Response E: Examiner respectfully disagrees.

Requesting different transmission rate is same thing as providing one parameter relating to the condition of communication of said content (QOS is a parameter relating to the condition of communication)

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All the references listed on 892 are related to the subject matter of adjusting the bit rate of the sending and receiving devices. More specifically, the teachings disclose the use of RTCP protocol parameters to adjust the bit rate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WASEEM ASHRAF whose telephone number is (571)270-3948. The examiner can normally be reached on Monday through Friday / 7:30 A.M to 5:00 P.M EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/W. A./

Examiner, Art Unit 2455

06/06/09

/saleh najjar/

Supervisory Patent Examiner, Art Unit 2455